

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Highline Exploration, Inc.
Well Name/Number: Buzzetti-Corkins Trust 92-16
Location: NW SE Section 16 T1S R32E
County: Big Horn, MT; Field (or Wildcat) Toluca

Air Quality

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.

Unusually deep drilling (high horsepower rig): No, single derrick drilling rig, 500 HP, to drill to 940' TD.

Possible H2S gas production: None

In/near Class I air quality area: Yes nearest Class I air quality area is the Crow Indian Reservation, about 4.25 miles to the south from this location.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☒ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using single rig to drill to 940' TD, Belle Fourche Formation. Surface hole will be drilled with air or freshwater, Rule 36.22.1001. Surface casing run and cemented to surface from 150' by pump and plug method, Rule 36.22.1001.

Water Quality

(possible concerns)

Salt/oil based mud: Surface hole will be drilled with air or freshwater, Rule 36.22.1001.

Air will be used out from under surface casing to total depth.

High water table: No high water table anticipated.

Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral drainage to Peritsa Creek, about 1/16 of a mile east from this location. There is stock pond, about 1.125 miles to the southeast from this location.

Water well contamination: No water well contamination because there are no water wells within 1 mile of this location. Surface casing will be set at 150'. Surface hole will be drilled with air or freshwater, Rule 36.22.1001. Surface casing will be run and cemented to surface from 150', Rule 36.22.1001.

Porous/permeable soils: No, sandy-silty bentonitic soils.

Class I stream drainage: No Class I stream drainages in the area of review.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☒ Other: Earthen pits are adequate for a freshwater/air drilling fluid system.

Comments: 150' of surface casing cemented to surface adequate to protect freshwater zones, Rule 36.22.1001.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated. To access this location operator will be crossing an ephemeral drainage.

High erosion potential: No, cut or fill need. Small single derrick self leveling rig will be used.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If this well is productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 100'X100' location size required. The drilling rig is a self leveling drilling rig, so very little dirt work is required.

Damage to improvements: None, surface use is grazing land.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other: _____

Comments: Will use existing county freeway frontage road, Highway 87 and existing two track ranch trail. A short new access road will be built from the existing ranch trail into this location. Drilling and misting fluids will be allowed to dry in the earthen pits. Cutting will be buried in the earthen pits. Pits will be backfilled when dry. No special concern.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest buildings are about 1.25 miles to the southeast and the town of Hardin is 7.5 miles to the east southeast from this location.

Possibility of H2S: None

Size of rig/length of drilling time: Single drilling rig 2 to 3 days drilling time

Mitigation:

☐ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☒ Other: Will use a diverter and knife valve instead of annular/double ram

BOP. Due to the low pressure gas zone anticipated.

Comments: No concerns.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: No identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threaten or endangered is the Black-footed Ferret. Candidate species are the Greater Sage Grouse and Sprague's Pipit. NH tracker website lists four (4) species of concern, Black-tailed Prairie Dog, Greater Sage Grouse, Western Hog-nosed Snake and Milksnake. NH tracker website lists one (1) Potential Species of Concern, Hayden's Shrew.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: Private grazing surface lands. Location is between Interstate 90 and Highway 87. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

Comments: On private grazing surface lands. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: Existing natural gas field, Toluca Gas Field. No concerns

Remarks or Special Concerns for this site

Well is a 940' Frontier (Belle Fourche) Formation development well within the Toluca Gas Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected, some short term impacts will be expected.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: April 17, 2013

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Big Horn County water wells

(subject discussed)

April 17, 2013

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Big Horn County

(subject discussed)

April 17, 2013

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T1S R32E

(subject discussed)

April 17, 2013

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____